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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,352	01/26/2005	Manfred Korthauer	KORTHAUER 3 PCT	7972
25889 7590 12/27/2006 WILLIAM COLLARD COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			EXAMINER NGUYEN, ANTHONY H	
			ART UNIT	PAPER NUMBER
			2854	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/27/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/522,352

Applicant(s)

KORTHAUER, MANFRED

Examiner

Anthony H. Nguyen

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event; however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 01/26/05 + 05/13/05.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 13-20 are objected to as being vague, generally narrative and awkward, and proper antecedent basis is not always provided. The claims appear to be a literal translation into English from the foreign document and are replete with grammatical and idiomatic errors. For examples, the language “the drive ... to be printed in its feed direction” (claim 13, lines 10-13), “during its feed” (claim 20 line 4) is vague since it is unclear which element is fed in “during its feed” (claim 20 line 4), or how the printer can be moved parallel to the feed direction of the object which is printed in “its feed direction”. Additionally, the language in claim 13, lines 4-20 is awkward and narrative, and the “can be” (claim 13, lines 7,11, claims 15,16 and 19 line 3, claims 17,18 lines 4) is not a positive claim language. There is no proper antecedent basis for “the supply speed” (claim 14, line 4). With respect to claims 15 and 18, it appears that applicant has attempted to claim two embodiments in one claim. Different embodiments must be claimed in different claims. This objection could be overcome by limiting a claim to one embodiment and adding a new dependent claim which recited the second embodiment.

The above are simply examples of the errors present. Applicant is required to carefully review the claims and eliminate all such errors.

To the extent the claims are positively recite structure, it appears that the following prior art rejection is proper.

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13-18 and 20 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Masumura et al. (US 5,366,302) in view of Leys et al. (US 3,735,702).

With respect to claims 13,15 and 17, Masumura et al. teaches a device for printing on an object or a sheet of paper (S) having a thermal print head 11, means for supply the sheet and a drive (shown as 18, see, Masumura et al., col.3 lines 33-38). The thermal print head supported on a support guide 10 can be moved parallel to the feed direction or in opposite to the feed direction of the sheet via a slot 4, a spring loaded pin 6 and a crank mechanism 13-18 as shown in Figs.1 and 2 of Masumura et al. Masumura et al. does not teach the control system that controls the movement of the thermal print head. Leys et al. teaches a device for printing on a sheet 24 having a controller 34 which controls the movement of the print head positions (Leys et al. Figs.1 and 2, col.4 lines 26-31). In view of the teaching of Leys et al., it would have been obvious to one of ordinary skill in the art to modify the device of Masumura et al. by providing a controller for controlling the movement of the print head as taught by Leys et al. for optimizing of print quality through adjustment of a thermal print head. With respect to claim 14,

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Leys et al. teaches the controller 34 which controls the movement of the sheets or the speed of the sheets while the controller 35 is used for processing an image signal fed to the thermal head (Leys et al., col. 4 lines 26-31). With respect to claim 18, the use of a cam disk or a circular disk for actuating the thermal print head to contact and print on an object against a spring element is well known in the art as exemplified by Leys et al. For example, Figs. 1 and 2 of Leys et al. show a circular cam 42 which moves the thermal print head 17 to and away from the surface of a drum 15 against the action of a spring element 55 for printing. With respect to claim 20, the use of a plate-shaped counter-bearing for supporting the back side of the object to be printed is well known in the art.

Claim 19 is rejected under 35 U.S.C. § 103 (a) as being unpatentable over Masumura et al. in view of Leys et al. as applied to claim 13-18 and 20 above, and further in view of Ehrhardt (US 5,978,004).

Masumura et al. and Leys et al. teach all that is claimed, except the thermal print head which has a piezo-actuator. Ehrhardt teaches a thermal print head 11 having a piezo-actuator 25 that actuates the print head as shown in Figs. 3 and 4 of Ehrhardt. In view of the teaching of Ehrhardt, it would have been obvious to one of ordinary skill in the art to modify the thermal print head of Masumura et al. and Leys et al. by providing the print head having a piezo-actuator for the advantage of providing an alternative print head giving an user a choice of a print head corresponding to a desired printing configuration.

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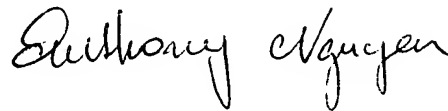
Conclusion

The patents to Kikuchi, Miazga, Saito, Teraoka and Sato are cited to show other structures having obvious similarities to the claimed structure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Nguyen whose telephone number is (571) 272-2169. The examiner can normally be reached daily from 9 AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen, can be reached on (571) 272-2258.

The fax phone number for this Group is (571) 273-8300.

A handwritten signature in black ink, appearing to read "Anthony Nguyen", is positioned above the typed name and title.

Anthony Nguyen
12/21/06
Patent Examiner
Technology Center 2800